

U.S. DEPARTMENT OF STATE

Agency Sustainability Plan

FY2010 - FY2020

August 30, 2010



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Letter from the Senior Sustainability Officer

Dear Chair Sutley and Director Orszag:

In accordance with Executive Order 13514, as the Senior Sustainability Officer for the U.S. Department of State, I hereby submit this Agency Sustainability Plan on behalf of the Department.

The U.S. Department of State is committed to pursuing and promoting responsible environmental stewardship and complying with all relevant environmental and energy statutes, regulations and Executive Orders. Over the next decade, the Department is planning to improve energy efficiency throughout its facilities and vehicle fleet, reducing material consumption and waste, and surveying and lowering its greenhouse gas emissions. The Department has begun renovations on a Charleston, SC, facility with the goal of achieving LEED® Platinum and net-zero energy status, implementing lighting, water and steam efficiency measures for the Department's domestic building portfolio, and exploring green training opportunities for employee development.

The Department is dedicated to ensuring the most effective U.S. foreign policy outcomes and promoting accountability to our primary stakeholders, the American people. With great pride I note that the Department has a record of incorporating sustainability into its operations. By harnessing our employees' zeal for greening efforts, we intend to make even greater strides over the next decade and beyond.

Sincerely,

Patrick F. Kennedy

Under Secretary for Management
Agency Senior Sustainability Officer
U.S. Department of State

SECTION 1: AGENCY POLICY AND STRATEGY

I. **Agency Policy Statement** - Letter from the Senior Sustainability Officer¹

II. **Sustainability and Agency Mission**

"The core mission of the U.S. Department of State is to advance freedom for the benefit of the American people and the international community by helping to build and sustain a more democratic, secure, and prosperous world composed of well-governed states that respond to the needs of their people, reduce widespread poverty, and act responsibly within the international system."

- Department Mission Statement

A primary function of the Department is to share with the international community the story of America, including the nation's values of environmental stewardship. As the Department conducts American diplomacy abroad, its operations model the policies it advocates globally, thus conveying a consistent message and enabling its diplomats to articulate and promote without pretense the environmental policies and aspirations of our nation.

The Department is committed to applying environmental sustainability to its business process in a manner that sets strategic goals and priorities, creates relevant programs, monitors activities, collects data and measures progress toward achievement of goals, uses performance and evaluation information to influence program resource and allocation decision making and communicates results to stakeholders.

With inherent cost-saving benefits, improved community relations and work environment for employees, environmental sustainability is a natural complement to the Department's business operations. As the Department advances global diplomacy with an ever-smaller eco-footprint, environmental sustainability will continue to be an essential guiding touchstone.

III. **GREENHOUSE GAS REDUCTION GOALS**

In January of 2010, in accordance with Executive Order (E.O.) 13514, the Department of State established a 20% greenhouse gas (GHG) reduction goal by Fiscal Year (FY) 2020 for its Scope 1 and Scope 2 emissions, pending the availability of sufficient resources. The reduction goal uses a FY2008 baseline and applies to the Department's ten domestically owned/delegated facilities.

The Department's domestic fleet vehicles account for less than 2% of its total Scope 1 and Scope 2 emissions. Focused on reducing domestic fleet emissions

¹ See Letter from Senior Sustainability Officer Patrick F. Kennedy, previous page

the Department will continue to comply with the requirements for fleet vehicle management in E.O. 13423 and 13514, and EISA.

In accordance with E.O. 13514, the Department will establish a GHG reduction goal for its Scope 3 emissions. Separating this goal into two segments, the Department establishes a 2% GHG reduction goal by FY2020 with a FY2008 baseline for its Scope 3 emissions from domestic waste and transmission distribution loss from purchased energy. The second segment of the Department's Scope 3 emissions, focused on federal employee travel, is currently undergoing development. The Department's Scope 3 emissions goal will be submitted in aggregate in the Department's FY2011 Agency Sustainability Plan.

The GHG inventory due in January 2011 will be the Department's first comprehensive GHG inventory of its domestic operations. As the Department proceeds with its data collection and inventory, it will inevitably receive new assignments and changes in resources, thus it may refine its GHG strategy and adjust its reduction goals as appropriate to account for changing operations.

IV. PLAN IMPLEMENTATION

On Earth Day 2009, Secretary Hillary Clinton challenged the Department to address its environmental responsibilities by integrating its policies, operational elements and public diplomacy in a comprehensive, cohesive and coordinated manner. This challenge, part of the Secretary's Greening Diplomacy Initiative (GDI)², asks entities across the Department to account for their environmental footprint, be responsible environmental stewards and promote diplomacy that is ecologically sustainable.

In response to this challenge, the Department established the Greening Council (GC)³ to coordinate capabilities and efforts across the Department. The GC is the senior-level group responsible for overseeing and coordinating the greening of the Department. The GC fulfills its mission by providing strategic direction and guidance, establishing Department-wide greening roadmaps, and evaluating the Department's overall environmental performance. The GC meets quarterly to discuss sustainability issues and assess progress. The GC, facilitated by the Greening Council Chair (GCC), guides the activities of the Greening Council Working Group (GCWG).

The GCWG implements greening policy and initiatives under the general direction of the GC. Its responsibilities include preparing project planning and reports for review and approval by the GC and implementing Executive Orders and other federal mandates across the Department.

² For more on GDI, see Supporting Document #2

³ For more on the Greening Council Structure See Supporting Document #3

GCWG's core functions are to:

- Facilitate department-wide greening and sustainability activities, including internal policies and externally imposed federal mandates
- Facilitate action on ideas put forth by the Department's employees
- Implement GC communications strategy
- Monitor progress of ongoing and new greening efforts
- Provide a forum for exchanging lessons learned and best practices

The GCWG is comprised of bureau-selected representatives. These working-level representatives offer technical expertise, interest in greening and sustainability issues, and are empowered to represent their bureaus in the deliberations and decision-making process. The Greening Council Working Group meets monthly.

The GCWG is organized into teams and have coordinator(s) to facilitate each team. The current standing teams are:

- Communications and Outreach – Inform/educate internal and external audiences of the Department's efforts and accomplishments, coordinate consistent department-wide messaging, and establish the Department's image of a responsible environmental steward.
- Strategic Sustainability Policy, Programming and Measurement – Facilitate and leverage best practices into a comprehensive and coordinated effort, includes greening and sustainability activities, performance and metrics, and budget and program planning.
- Official Events – Coordinates official department-wide events (e.g. Earth Day, America Recycles Day, Speaker Series, etc.)
- Employee Ideas – Fosters an interactive green dialogue within the Department and encourages employee involvement and suggestions.

The Executive Secretariat (ES) is the coordinator and convener for the GC and supporting work groups. The ES prepares for and organizes GC and GCWG meetings, oversees drafting of greening reports and documents, and finalizes strategic planning on behalf of the Council. The ES also facilitates programs and initiatives that further GC objectives. The Office of Management Policy, Rightsizing, and Innovation (M/PRI) serves as the ES.

Activities to implement plan are assigned below:

- a. *Internal Coordination and Communication* – GCWG Communication and Outreach Team

- b. *Coordination and Dissemination of the Plan to the Field - GCWG ES*
- c. *Leadership & Accountability – GC*
- d. *Agency Policy and Planning Integration – GC and carried out by the GCWG*
- e. *Agency Budget Integration – GC and carried out by the Department's Bureau of Resource Management (RM). The Department will assess investments that support its ASP as part of the annual budget formulation and execution processes.*
- f. *Methods for Evaluation of Progress – GCWG will report back to the GC in quarterly reports, GC will determine if changes are needed.*

Table 1: Critical Planning Coordination*

Originating Report / Plan	Scope 1 & 2 GHG Reduction	Scope 3 GHG Reduction	Develop and Maintain a Comprehensive GHG Inventory	High-Performance Sustainable Design / Green Buildings	Regional and Local Planning	Water Use Efficiency and Management	Pollution Prevention and Waste Elimination	Sustainable Acquisition	Electronic Stewardship and Data Centers	Agency Specific Innovation
"Sample Plan"	Yes	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Yes	No
GPRA Strategic Plan	No	No	No	No	No	No	No	No	No	n/a
Agency Capital Plan	No	No	No	No	No	No	No	No	No	n/a
A-11 300s	No	No	No	No	No	No	No	No	No	No
Annual Energy Data Report	Yes	n/a	Yes	Yes	n/a	Yes	n/a	n/a	Yes	No
EISA Section 432 Facility Evaluations/Project Reporting	Yes	n/a	Yes	Yes	n/a	Yes	n/a	n/a	n/a	No
Budget	No	No	No	No	n/a	No	No	No	No	No
Asset Management Plan / 3 Year Timeline	No	No	No	Yes	No	Yes	Yes	Yes	n/a	No
Circular A-11 Exhibit 53s	No	No	No	No	No	No	No	No	No	No
OMB Scorecards	Yes	Yes	Yes	Yes	n/a	Yes	Yes	Yes	Yes	No
DOE's Annual Federal Fleet Report to Congress and the President	Yes	n/a	Yes	n/a	n/a	n/a	n/a	n/a	n/a	No
Data Center Consolidation Plan	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Environmental Health & Safety Management Systems (EHSMS)	No	No	No	Yes	n/a	Yes	Yes	Yes	n/a	No
Other (reports, policies, plans, etc.)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

*Existing plans will be updated to incorporate the objectives of E.O. 13514 in future ASP submissions

V. EVALUATING RETURN ON INVESTMENT

- a. *Economic Lifecycle Cost/Return on Investment*⁴ – The Department uses life-cycle cost (LCC) analysis for decisions on investing in facility systems or equipment installations, and return on investment (ROI) analysis for determining investments in energy savings initiatives. With respect to Energy Savings Performance Contract (ESPC) decisions, the Department evaluates potential projects with the criterion of short to moderate pay-back times (i.e., 5-10 yrs) ensuring recovery of the investment before changes to the building or mission negate the effectiveness of the improvements. The Department also evaluates the financing aspects of ESPCs.
- b. *Social Costs & Benefits* – The Department continues to explore how to weigh the social costs and benefits of addressing its GHG emissions with the procurement of goods and services to achieve its mission. In the absence of guidance from the Administration or legislation, the Department will continue to follow the FAR and other federal guidelines when investing in capital assets and services while pursuing, when able, a low environmental footprint.
- c. *Environmental Costs & Benefits* – The Department continues to explore how to weigh the environmental costs and benefits of addressing its GHG emissions with the procurement of goods and services to achieve its mission. In the absence of guidance from the Administration or legislation, the Department will continue to follow the FAR and other federal guidelines when investing in capital assets and services while pursuing, when able, a low environmental footprint.
- d. *Operations & Maintenance and Deferred Investments* – The Department evaluates the operations and maintenance costs for both the current and proposed assets in making investments decisions for facilities and equipment. More energy efficient equipment may also be more complicated and so have higher maintenance costs for consumables, spare parts, and technical support. Deferred investments can be for programmatic or budgetary/financial reasons.

Climate Change Risk and Vulnerability – With regard to physical structures, the Department does not foresee any considerable risks to its facilities that would hinder its ability to carry out its diplomatic mission. The Department will continue to evaluate its areas of operation for potential climate change effects on its facilities and weigh such impacts with any capital investments.

Due to the geopolitical interests in and impacts of climate change and related national policies, a portion of the Department's diplomatic mission will continue to be affected by climate change. On the political and programmatic levels, the Department will continue to join colleagues across

⁴ Applies to investments to reduce Scope 1 & 2 emissions. Does not apply to Scope 3 emission reduction efforts.

the U.S. Government in directing significant diplomatic and development resources to address climate change, both through international fora such as the UN Framework Convention on Climate Change and the Major Economies Forum on Energy and Climate, as well as through bilateral and multilateral assistance programs.

Government-wide, appropriations for international climate activities total \$1.3 billion in Fiscal Year 2010, and the Administration has requested \$1.9 billion in appropriations for Fiscal Year 2011. Roughly 40% of these resources are for bilateral activities managed by USAID and State. The U.S. Government uses these resources to support reductions of greenhouse gas emissions as well as increased resilience to the impacts of climate change.

e. *Other (none)*

VI. TRANSPARENCY

The Department will continue to share the story of how it conducts the nation's diplomacy, making available to the public its agency sustainability policy statement, GHG reduction goals and its Department-wide greening accomplishments on both the America.gov and State.gov websites.

For the international community, the Office of International Information Programs (IIP) promotes international awareness of the U.S government's green initiatives through multimedia web features on the America.gov web site, digital video conferences connecting American experts with foreign audiences, web chats, traveling speakers, and print publications.

Recent content focusing on the Department's efforts includes a story about U.S. embassies in Sofia and Panama City having met the standards of the U.S. Green Building Council (USGBC). The piece was translated into Spanish, French and Persian and notes the Department goal that all new embassies will meet USGBC standards.

SECTION 2: PERFORMANCE REVIEW AND ANNUAL UPDATE

I. **SUMMARY OF ACCOMPLISHMENTS** – To be submitted in FY2011 submission

II. **GOAL PERFORMANCE REVIEW** – To be submitted in FY2011 submission

GOAL 1: SCOPE 1 AND SCOPE 2 GREENHOUSE GAS (GHG) REDUCTION

- a. **Sub-goal (a.)[Buildings] – Goal description:** In January 2010, the Department established a GHG reduction goal, pending adequate resources, of 20% by FY2020 relative to a FY2008 baseline for Scope 1 and Scope 2 emissions in accordance with E.O. 13514. This amounts to a reduction of 18,810 MTCO_{2e} or the equivalent of taking 3,263 passenger vehicles off the road annually, according to the Environmental Protection Agency (EPA).

The Scope 1 and Scope 2 emission reduction goal was established using the Department of Energy's (DOE) Development of Agency Reduction Goals (DART) tool. The Scope 1 and Scope 2 GHG reduction goal applies to the following domestic portfolio of owned/delegated facilities:

- HST Harry S Truman – Headquarters
- SA-1 Columbia Plaza
- SA-51 Blair House - President's Guest House
- SA-26 Beltsville Information Management Center (BIMC)
- SA-33 Federal Building – International Chancery Center (ICC)
- SA-42 George P. Shultz – National Foreign Affairs Training Center (NFATC)
- SA-58 Portsmouth Consular Center (PCC)
- SA-61 Florida Regional Center (FRC)
- SA-59 Charleston Regional Center (CRC)
- SA-62 Kentucky Consular Center (KCC)

In addition to absolute GHG reduction goals, the Department is also committed to reducing facility energy intensity and increasing renewable energy use.

- b. **Sub-goal (a.)[Buildings] – Agency lead for goal:** The Department's Sustainability Plan was developed by cross-functional working groups. The agency lead for Goal 1 is the Bureau of Administration (A). This bureau has program responsibility for domestic facility management, fleet management, real property management, and logistics management.

The Office of Management Policy, Rightsizing, and Innovation (M/PRI), the Under Secretary for Management's central management organization, has overall responsibility for plan development and implementation. M/PRI provides guidance to offices and working groups, and ensures internal coordination and communication of the plan.

c. Sub-goal (a.)[Buildings] – Implementation methods: The Department's strategy to achieve the established FY2020 GHG reduction goal is multifaceted, includes facility energy conservation measures, efforts to reduce consumer/employee energy demand, renewable energy, and changing energy sources. Implementation will leverage existing effective programs such as Environmental Health and Safety Management Systems (covering facility management operations); the Department High Performance and Sustainable Buildings Domestic Implementation Plan⁵; and the Department Electronics Stewardship Plan⁶ and Data Center Consolidation Plan⁷.

The established GHG goal is rooted in three critical assumptions:

- 1) The 20% Scope 1 and Scope 2 GHG reduction goal is limited to the Department's ten domestically owned/delegated facilities;
 - 2) The Department is able to forge appropriate arrangements with its energy suppliers to purchase renewable energy to begin in FY2012;
 - 3) The Department has sufficient funding to purchase added renewable energy, absent funding the Department's attainable GHG goal is 11%.
- i. *Reduce Facility Energy Intensity* – The Department intends to meet a significant portion of its GHG reductions at zero net cost through installing energy saving measures, such as efficient lighting and water use, possibly financed through DOE's Energy Savings Performance Contracts (ESPCs), depending in part on the financing aspects of the particular ESPC. Under these mechanisms, contractors would install energy saving measures throughout Department buildings and the energy cost savings from these measures would be used to pay contractors. The Department's current installation of energy saving measures will address 80% of the domestic portfolio's energy consumption (HST, BIMC, NFATC, ICC and Blair House). These efforts are expected to fully support our OMB Energy Scorecard goals but may not contribute to the FY2010 reporting cycle.

To date, the Department has evaluated the largest energy consuming buildings within its facilities portfolio for energy efficiency improvements. The remaining buildings will be evaluated later this year; however, due to their low energy profile, any efficiency gains are expected to have a relatively low impact on the Department's overall reduction goal.

HST is a General Services Administration (GSA)-owned building for which operating authority has been delegated to the Department. While GSA is

⁵ See Supporting Document #4

⁶ See Supporting Document #5

⁷ See Supporting Document #6

under the same mandates as the Department to improve energy efficiency in their renovations, the final determination of what is renovated at HST is dependent on appropriations for GSA's Capital Investment and Leasing Program.

The Department's capacity to expeditiously perform Life Cycle Cost (LCC) algorithms for all of the energy consuming equipment within its buildings portfolio is limited. Enhanced performance in this area would enable quick analysis of how early replacement of energy consuming equipment and the ranking of potential projects for best use of additional funding would impact GHG reductions – particularly for a 10-year outlook. The Department plans to incorporate this capability into its computerized maintenance management system (CMMS) by FY2012.

- ii. *Reduce demand* – The Department is evaluating several demand reduction policies to achieve GHG reductions. Information technology (IT) equipment is responsible for approximately half of the Department's energy use. The Bureau of Information Resources Management (IRM) and (A) plan to implement a department-wide power management solution in phases. In the first phase, the Department will leverage existing power management capabilities, such as “sleep” and “hibernate” modes, using existing methods and tools. For domestic locations, there is a goal for 100% compliance for enabling basic power management features on workstations. The Department is also considering reducing IT energy demand by removing personalized IT services, such as personal printers/scanners, thus reducing energy load by relying only on network printers/scanners.

The second phase of the power management initiative is to explore the feasibility of implementing a single enterprise-wide solution that accounts for security requirements to perform centralized patching and security compliance scanning (see *Goal 9: Electronic Stewardship and Data Centers*). The policies included here are at various stages of development and their effect on the Department's core mission and GHG reductions is undetermined.

Complementing these efforts, the GC will continue to review and evaluate the Department's business processes to determine how additional energy demand can be reduced.

- iii. *Renewable Electricity Installation and Use*. Electricity for HST, BIMC, SA-1, ICC, and Blair House is provided by PEPCO through a GSA contract that includes 5% renewable energy for FY2010. This is done with the purchase of Renewable Energy Credits (RECs). RECs are tradable, non-tangible energy commodities. It is important to note that the energy associated with a REC is sold separately and is used by another party. The consumer of a REC receives only a certificate. RECs, being phased out in FY2012, will be used by the Department to meet its FY2010 goal. The Department currently is exploring a Power Purchase Agreement (PPA) to buy bona fide

renewable electricity. The option to fund on-site renewable energy equipment such as solar and wind was assessed in FY09 for HST, BIMC, NFATC, and Blair House but currently is not cost effective.

- iv. *Energy source.* HST is by far the largest contributor of GHG emissions, representing 60 % of the Department's total domestic emissions; therefore our focus is on this facility to achieve the Department's reduction goal. The Department will address the efficiency of steam energy delivered to HST by GSA, which is roughly 2.4 times less efficient than the default efficiency rate included in the DART tool. Changing HST steam to a more efficient source will greatly impact the building's GHG emissions. The HST steam effort is planned for consideration in phase 2 of the Department's first ESPC, which should commence in FY2011.
- d. **Sub-goal (a.)[Buildings] – Positions:** The Department is continuing to assess the staffing needed to implement this portion of its plan and will address any additional requirements through the financial planning process for FY10 and FY11 and/or in the FY12 budget request. We acknowledge a need to redirect priorities for existing FTE. The Department currently has no FTE that dedicate 100 % of their time to this goal area.
- e. **Sub-goal (a.)[Buildings] – Planning table:** See combined table for Fleet and Buildings under the Sub-goal (b.) [Fleet Management].
- f. **Sub-goal (a.)[Buildings] – Agency status:** The Department anticipates managing additional domestic facilities over the next ten years. This may require the Department to amend its domestic GHG accounting and goal. The Department's Sustainable Buildings Implementation Plan (SBIP) requires all domestic new construction and major renovations to achieve a minimum LEED® Silver rating. Through the implementation of the SBIP, the Department will strive to limit and reduce its GHG emissions even as it acquires additional facilities within its domestic portfolio.

The Department is committed to reducing its environmental footprint abroad and is currently evaluating overseas facilities and identifying opportunities to achieve greenhouse gas reductions. Though the Department is not submitting a plan for its overseas portfolio at this time, it does reiterate its dedication to sustainability overseas and will continue to provide updates on its efforts.⁸

- a. **Sub-goal (b.)[Fleet Management] – Goal description:** The Department has determined that its domestic fleet vehicles account for less than 2% of its total Scope 1 and Scope 2 emissions (1,934 MTCO₂e). Therefore, the established goal does not incorporate domestic fleet vehicles in the calculation due to

⁸ The Appendix (Supporting Document #1) outlines our Bureau of Overseas Buildings Operations (OBO) sustainability policy and strategy.

their marginal impact. Nonetheless, the Department will continue to comply with the requirements for fleet vehicle management in E.O. 13423, E.O. 13514, and EISA § 142.

- b. Sub-goal (b.)[Fleet Management] – Agency lead for goal:** The Department's Sustainability Plan was developed by cross-functional working groups. The agency lead for Goal 1 is the Bureau of Administration (A). This bureau has program responsibility for domestic facility management, fleet management, real property management, and logistics management.

The Office of Management Policy, Rightsizing, and Innovation (M/PRI), the Under Secretary for Management's central management organization, has overall responsibility for plan development and implementation. M/PRI provides guidance to offices and working groups, and ensures internal coordination and communication of the plan.

c. Sub-goal (b.)[Fleet Management] – Implementation methods:

- i. *Reduce Petroleum Use in Fleet Vehicles.* E.O. 13423 requires agencies to reduce petroleum consumption of covered vehicles by 2% annually by the end of FY2015 relative to a FY2005 baseline; the Department's FY2005 baseline petroleum consumption was 278,985 gasoline gallon equivalents (GGEs), which equates to a cumulative 8% reduction target in FY 2009 of 256,666 GGEs. In FY2009, the Department consumed only 231,285 GGEs of petroleum fuel, a decrease of 17% from the baseline, which far exceeded the target.

The Department's strategy includes acquisition of more fuel efficient vehicles, encouraging employees to reduce miles traveled in government vehicles (for example, by conducting business via tele-/video-conferencing, using commercial delivery services, conducting training by webinar, and using public transportation instead of driving), and educating vehicle operators to ensure they operate assigned vehicles in a fuel efficient manner. The Department will continue to explore new initiatives to further decrease petroleum fuel consumption in out-years, including acquisition of more hybrid electric vehicles (HEVs) and exploration of new lean-burn technologies.

- ii. *Increase Use of Alternative Fuels (AFs) in Fleet Alternative Fuel Vehicles (AFVs).* Historically, the Department has acquired significantly more AFVs each year than is required by the Energy Policy Act (EPAct), which mandates that 75% of annual covered fleet acquisitions must be AFVs. This has been accomplished primarily through acquisition of flex-fuel vehicles (FFVs), which can be refueled with unleaded regular gasoline or E85, a fuel blend of 85% ethanol and 15% gasoline. FFVs are commonly produced by U.S. manufacturers and widely available in various body styles and configurations that meet mission requirements; in FY2009, 41%

(556 vehicles) of the Department's domestic fleet were FFVs. The Department also operates a few compressed natural gas (CNG) vehicles and consumes a small amount of bio-diesel fuel each year, but not in sufficient quantities to have a significant impact on meeting the Energy Independence and Security Act of 2007 (EISA) requirement to increase AF consumption by 10% per year (compounded annually) from the FY2005 baseline.

Despite successful acquisition of FFVs, the Department continues to fall short of the AF fuel consumption target each year; projections reflected in the Federal Automotive Statistical Tool (FAST) indicate this exponentially-increasing target will continue to be missed.

AF Fuel Consumption Usage (GGE)	Baseline FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15
	28,480	22,892	12,462	13,192	14,115	Future	Future	Future	Future	Future	Future
Target <i>(Increase AF Fuel consumption by 10% per year, compounded annually)</i>	N/A	31,328	34,460	37,906	41,697	45,867	50,454	55,499	61,049	67,154	73,869

A possible means to meet this requirement is through increased consumption of E85; however, due to limited commercial AF fueling infrastructure in the Washington, D.C. metro area and its distance from headquarters coupled with area traffic congestion, this would cause employee productivity loss for the Department.

A popular option which has been advocated to the Department is increasing acquisition of HEVs. Each year the Department acquires more HEVs in the pursuit of reducing its petroleum fuel consumption and reducing its GHG footprint. While this contributes to lower petroleum consumption and GHG emission, HEVs still operate primarily on petroleum fuel, not on an AF. Therefore, HEV acquisitions do not directly contribute to the goal of increasing AF.

In a case where solutions to mandates, such as using more HEVs and increasing AF consumption, compete with each other, the Department pursues a primary objective while working with stakeholders to develop more options to eventually meet all mandates. Specifically in this situation, since all of the goals of the various "green" mandates share the

root goal of reducing petroleum fuel consumption, petroleum fuel consumption reduction is the Department's core objective. Declaring this focus, the Department is able to clearly identify and pursue activities that drive an increase in AF consumption and an increase in acquisition of HEVs, all the while decreasing GHG emissions and dependence on foreign oil.

In the face of existing and apparently contradictory solutions to mandates and the unlikelihood those mandates or solutions will change in the near future, the Department will undertake the following efforts to increase AF consumption:

- 1) Obtain better data to gauge how much AF is actually used. Currently, point-of-purchase fuel coding problems at commercial refueling sites often miscode AF as petroleum fuel (and vice-versa) on purchase receipts and monthly invoices, so AF consumption must be estimated; this could be masking a higher actual AF consumption rate. The Department has implemented a program to have all drivers of non-law-enforcement FFVs and bi-fuel CNG vehicles in the Washington DC metropolitan area file a monthly fuel report. This one-page log is completed by drivers/vehicle custodians whenever fuel is purchased for a vehicle, detailing the type and amount of fuel purchased. The AF quantities from these forms will be entered into a database to facilitate better tracking of fuel consumption and better communication with vehicle custodians whose non-exempt FFVs and bi-fuel CNG vehicles are being refueled with gasoline instead of the AF.
- 2) The Department will take steps to increase AF consumption in all FFVs, including waived and exempted (law enforcement) FFVs where ever possible, by motivating operators of FFVs to buy more E85. Positive incentives being considered include certificates, plaques, award points, cash, or compensatory time off. Negative incentives being considered include written notifications of "missed opportunities" sent to vehicle custodians with a copy to the custodian's chain of command or, in repeated instances, canceling of fuel cards. Foremost, the Department will re-familiarize vehicle operators with the requirement for non-waived FFVs to use E85, which will be facilitated by the requirement to provide monthly fuel reports (described in the previous section), and by direct contact with drivers and vehicle custodians when an FFV is refueled with gasoline rather than the AF.
- 3) The Department will address fleet efficiency through the appointment of a centralized Fleet Manager, who will directly oversee vehicle fleet issues and possess the authority to direct good fuel management for all sub-fleet vehicles. One primary

advantage to consolidation in this manner will be the cross-bureau coordination of vehicle acquisitions among existing sub-fleets, which does not currently exist. This effort will allow for centralized review of new vehicle requirements and facilitation of intra-departmental vehicle transfers to meet those requirements before adding additional vehicles to the Department's fleet through lease or procurement. Such sustained focus to right-size the fleet through cross-bureau coordination will ensure optimal utilization of existing fleet assets, while simultaneously ensuring that the minimum number of properly sized and configured vehicles needed to meet mission requirements is held in inventory, and that any new vehicles acquired as a result of these efforts adhere to sound green-fleet management principles.

In addition, Fleet Manager will facilitate the enforcement of sound fuel management procedures, such as the completion of monthly fuel logs, ordering right-sized vehicles, filing waivers, and complying with regulatory requirements, especially in the use of alternative fuel. Having this dedicated and authoritative focus will positively impact AF consumption, while simultaneously meeting the EPA's EISA Section 141 Guidance document (February 23, 2010) recommendation that each federal agency should consolidate the responsibility for EISA § 141 low greenhouse gas certifications in one office to maintain consistency and facilitate program oversight and recordkeeping.

- 4) The Department continues to pursue opportunities to increase the availability of E85 by networking with other federal agencies, attending private industry trade shows/conferences, actively participating in DOE-sponsored working groups, and maintaining contact with various entities of the Clean Cities coalition. The Department is exploring possibilities to install AF infrastructure (including E85, CNG and biodiesel) on-site, some of the challenges being considered include the Department's ability to adequately turn over fuel stock and operate such a facility, funding and local and regional environmental regulations and controls. The most likely means of increasing AF consumption is ensuring the FFV fleet uses existing commercial infrastructure at every opportunity, which would also be the most cost effective and expeditious means of achieving that goal.

- iii. *Optimize Use of Vehicles and Right-Size Fleet.* In FY2009, domestic Department vehicles realized an average utilization of approximately 6,900 miles per vehicle, indicating relatively well-optimized utilization. In order to right-size the fleet, which requires not only ensuring that the right quantity of vehicles is assigned but also that the correct type of vehicle is assigned to each mission, the Department currently determines domestic

fleet composition on a micro-basis (rather than on a macro basis across the fleet) through the use of an allocation methodology centered on individual vehicle justification and approval.

For new vehicle assignments, each vehicle must be justified and authorized on a case by case basis, with emphasis on the number of employees supported, the number of anticipated miles/trips per year, operating conditions, potential for shared use of vehicles, impact on "green fleet" mandates/initiatives, and importance to the mission. For replacement vehicles, existing fuel-efficient vehicles and AFVs are routinely replaced "in kind" after revalidation of need by the vehicle custodial office, while less fuel efficient vehicles (such as SUVs and 4x4s) require re-justification before a like vehicle will be provided at the end of the existing vehicle's life-cycle. In all cases, emphasis is placed on providing more fuel efficient (e.g., smaller or front-wheel drive) vehicles, AFVs, and/or low greenhouse gas emitting vehicles whenever possible. Each individual vehicle justification and authorization decision contributes to the overall "right-sized" fleet composition.

The Department is in the data-collection phase of implementing a recently developed electronic tool to validate the results of its existing vehicle allocation methodology. The results of the electronic tool for the domestic fleet are scheduled to be available in June 2010, at which time the results will be used to fine-tune the existing vehicle assignment methodology and ensure a more "right-sized" fleet.

- iv. *Increase Use of Low Emission and High Fuel Economy Vehicles.* As indicated in response to previous fleet-related sustainability sub-goals, the Department emphasizes acquisition of the most fuel-efficient vehicles necessary to meet mission requirements, which results in increased use of low emission vehicles. From FY2008 to FY2009, the Department increased its inventory of FFVs by 132 units, and has recently acquired 18 fuel efficient, low emission HEVs. As more low GHG/high fuel economy vehicles become available, including plug-in hybrid electric vehicles which are not yet available on the commercial market, the Department will increase its inventory of such vehicles and continue a trend of increasing fuel economy while simultaneously decreasing harmful emissions. Finally, the Department is also emphasizing an increase in consumption of biodiesel fuel, which while not burned in low emission vehicles per se will lead to lower GHG emissions, and acquisition of vehicles with lean-burn technology, which will increase fuel economy while decreasing GHG emissions.

d. Sub-goal (b.) [Fleet Management] – Positions: For Fleet-related activities contained in this plan, the Department is adequately staffed to address current requirements and known issues. Two Department employees provide primary support to the program on a collateral-duty basis; one of these

employees spends approximately 25% of his time on vehicle-related sustainability issues, and the second employee spends approximately 50% of his time on such issues. In addition, the efforts of these two individuals are augmented by various fleet stakeholders (primarily sub-fleet managers and their respective staffs) on a collateral duty basis as needed, and by a commercially contracted consultant organization when needed.

In total, approximately two FTE are dedicated to vehicle-related sustainability issues each year (including data-collection/input into the Federal Automotive Statistical Tool [FAST] for various tasks, preparation of annual reports, oversight of the OMB Scorecard, development and implementation of strategic/sustainability plans, oversight of vehicle acquisitions and fuel-management functions, alternative fuel infrastructure identification and development, development of internal policy, and attendance at federal-level meetings, conferences and working groups [such as those sponsored by GSA and DOE] that address vehicle sustainability issues).

- e. Sub-goals (a. & b.) [Buildings/Fleet Management] – Planning table (see next page):** As the Department advances its plans, it will inevitably receive new assignments and resource changes, thus it may refine its GHG strategy and adjust its reduction goals as appropriate to account for changing operations.

	GOAL 1 - SCOPE 1&2 GHG TARGET	Unit	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	....	FY 20
Buildings	Energy Intensity Reduction Goals <i>(BTU/ft² reduced from FY03 base year)</i>	%	15 %	18 %	21 %	24 %	27 %	30 %	hold	....	hold
	Planned Energy Intensity Reduction⁹ <i>(BTU/ft² reduced from FY03 base year)</i>	%	SEE NOTE					30 %				
	Renewable Electricity Goals <i>(% of electricity from renewable sources)</i>	%	5 %	5 %	5 %	7.5 %	hold	hold	hold	hold	hold	
	Planned Renewable Electricity Use <i>(% of electricity from renewable sources)</i>	%	5 %	5 %	5 %	7.5 %	hold	hold	hold	hold	9 %	
Fleet	Petroleum Use Reduction Targets <i>(% reduction from FY05 base year)¹⁰</i>	%	10 %	12 %	14 %	16 %	18 %	20 %	22 %	....	30 %
	Planned Petroleum Use Reduction¹¹ <i>(% reduction from FY05 base year)</i>	%	SEE NARRATIVE BELOW FOR FLEET MANAGEMENT									
	Alternative Fuel Use in Fleet AFV Target <i>(% increase from FY05 base year)¹²</i>	%	61 %	77 %	95 %	114 %	136 %	159 %	hold	....	hold
	Planned Alternative Fuel Use in Fleet AFV <i>(% increase from FY05 base year)</i>	%	SEE NARRATIVE BELOW FOR FLEET MANAGEMENT									
	Scope 1 & 2 - Reduction Target <i>(reduced from FY08 base year)</i>	%	-	2 %	4 %	6 %	8 %	10 %	....	....	20 %

f. Sub-goal (b.)[Fleet Management] – Agency Status: Over the past year, the Department has made a concerted effort to acquire more HEVs and AFVs and to increase the consumption of alternative fuels in the existing AFV fleet. The Department has also initiated action to develop a vehicle allocation methodology (VAM) that will assist management in ensuring that the correct sizes and types of vehicles are assigned to meet mission requirements; it is anticipated that the VAM will be implemented during FY2010, with the results incorporated into out-year vehicle acquisition planning. “Green fleet” mandates and initiatives are routinely discussed at the Department’s Fleet Management Council (FMC) meetings in an effort to promote sustainability with mid-level fleet managers. All of these efforts are aimed at reducing petroleum fuel consumption and GHG emissions through more efficient fleet management and promotion of lower-emission and alternative fuel vehicles.

⁹ The Department strives to achieve the mandated 30% reduction in energy intensity by FY 2015. Our glide path will not necessarily align with the projected linear year-to-year targets, but will track with proposed and planned energy conservation projects and initiatives.

¹⁰ The Department strives to achieve the mandated 30% reduction in energy intensity by FY 2015. Our glide path will not necessarily align with the projected linear year-to-year targets, but will track with proposed and planned energy conservation projects and initiatives.

¹¹ In fleet vehicles.

¹² The increased percentage of alternative fuel use is relative to the FY2005 baseline.

GOAL 2: SCOPE 3 GREENHOUSE GAS REDUCTION

- a. Goal description:** The Department's Scope 3 target is being submitted in two segments. In the first segment, the Department submits an initial 2% FY2020 greenhouse gas (GHG) reduction target for Scope 3 emissions relative to a FY2008 baseline in accordance with E.O. 13514. This portion of the Scope 3 emission reduction target was established using the Department of Energy's Scope 3 Target tool and applies to the Department's domestic operations. The initial part of the target pertains to the Department's commitment to reduce GHG from contracted waste disposal and transmission distribution losses from purchased energy. The second segment of the Department's Scope 3 target, which is currently under development, covers the Department's federal employee travel emissions. The Department's intends to submit its aggregate Scope 3 target within its FY2011 Agency Sustainability Plan.
- b. Agency lead:** There are two co-lead offices for Goal 2; M/PRI and the Bureau of Administration (A). Contributing offices include the Office of the Under Secretary for Democracy and Global Affairs (G); the Bureau of Oceans, International Environmental and Scientific Affairs (OES); Human Resources (HR); Resource Management (RM); Bureau of Information Resources Management (IRM).

The Office of Management Policy, Rightsizing, and Innovation (M/PRI), the Under Secretary for Management's central management organization, has overall responsibility for plan development and implementation. M/PRI provides guidance to offices and working groups, and ensures internal coordination and communication of the plan.

- c. Implementation methods:** The Department is addressing GHG emissions related to Federal Employee Travel, Contracted Waste Disposal, and Transmission and Distribution Losses from Purchased Energy. The implementation strategy for each emission category is outlined below.
- i(a).* *Federal Employee Travel* – The Department is committed to reducing GHG emissions related to its federal employee travel. To achieve this objective, a plan to examine, report and reduce the Department's GHG emissions from travel without negatively impacting its ability to carry out its core mission of international diplomacy is currently under development.
- i(b).* *Agency lead for goal* – See section b. above.
- i(c).* *Implementation methods* – The Department is forming a Greening Council Working Group (GCWG) focused on travel emissions. This Travel GCWG will be charged with initially developing a metrics system to account for the Department's domestic federal employee travel emissions, surveying how each division of the Department uses travel to carry out their respective missions, and recommending solutions to the GC for

implementation. The outcome of this GCWG will be provided in the Department's FY2011 ASP submission.

The backdrop for the Travel GCWG is complex. The group will need to develop solutions within the context of the Department's growing global workforce, an ever-expanding international mission with multinational challenges and players, and the concept that effective diplomacy is inherently about people to people relationships and contacts. All of which suggests Department travel will likely need to increase in the future.

The Department is under no illusions; travel is an essential tool for diplomacy. Reducing travel emissions requires scrutiny of one of the Department's fundamental business models. This task will not be easy; the Department's business culture will be challenged and ultimately, this exercise may only produce limited successes.

Challenges to explore include:

- Developing a flexible system that continually gathers reliable data
- Determining how each Department division uses travel to carry out their respective missions
- Determining which travel missions and alternative solutions offer opportunities to reduce GHG emissions
- Developing viable alternatives to carry out activities that would have involved travel, if reduced travel is implemented
- Developing implementation plans with limited time and resources

Solutions to explore include:

- Promoting more use of Digital Video Conferencing (DVC)
- Promoting more use of Phone Conferences
- Promoting more use of Web Conferencing/Communications
- Developing a criteria matrix for travel
- GHG Accounting/Budgeting for Supervisors
- Reducing Travel
- Interoffice/Interagency Travel Coordination

i(d). *Positions* – At this time, the A Bureau's Office of Logistics Management (A/LM) would need to redirect priorities for existing FTEs as the workload associated with implementation of this plan is uncertain. A/LM and IRM may need to assign additional FTEs and resources in the future as targets and implementation are further refined in the out years.

i(e). *Agency Status* – In 2009, the Department funded 142,370 tickets for domestic travel and GSA estimated that the Department produced 92,273,164 lbs of GHG. The Department strives to minimize its carbon footprint by leveraging technology to reduce TDY travel. A/LM often uses VTC/DVC to conduct meetings with its offices in New York, Miami, Seattle,

Brownsville, Texas, and Antwerp, Belgium. Last year, 10 A/LM representatives participated in the Bureau of African Affairs' Management Officers' Workshop in Namibia via VTC/DVC to answer questions from Management Officers overseas. Recently, A/LM trained 220 individual posts on a new software package without ever leaving the office by employing Microsoft Communicator to conduct training classes. The Department has already realized a large savings in travel and GHG emissions through technology and aims to expand on these successes.

- ii. *Contracted Waste Disposal* – The Department is committed to achieving 50% waste diversion by FY2015 by increasing the amount of non-hazardous solid waste that is diverted annually as required in E.O. 13514 and to reducing greenhouse gas emissions related to contract waste disposal. The Department submits a GHG reduction target of 20% for contracted waste disposal along with this plan, however, the Department is not prepared at this time to establish a GHG reduction target for contracted wastewater treatment as these emissions are calculated based on the number of federal workers employed by the Department. Based on current mission demands, the Department is likely to experience continued workforce growth over the next ten years.

All of the Department's domestic owned and delegated facilities have active recycling programs. These ten facilities, listed earlier under Goal 1, are included in the Department's annual Sustainable Acquisition Practices: Green Purchasing, Waste Management, and Chemicals Management surveys. The Department's domestic portfolio is primarily located in the Washington D.C. metropolitan region. A portion of the waste from the Department's Washington D.C. area facilities is processed through Covanta Energy-from-Waste facilities, reducing associated GHG emissions. The Department will determine the amount of solid waste that is processed by Covanta and report findings as part of our comprehensive GHG inventory.

It is Department policy¹³ to reduce the amount of solid waste produced in Department owned and delegated facilities, to salvage and recycle or reuse as much waste material as possible, and to dispose of non-recyclable or reusable solid waste in a manner that minimizes impact to the environment. Whenever possible, the Department strives to prevent the generation of hazardous waste and to act quickly and responsibly clean up and restore any areas under its jurisdiction that are contaminated. It is also Department policy¹⁴ to purchase recycled-content products whenever possible. The Department's Affirmative Procurement Program contains guidance for the purchase of such products including Energy Star® products, Federal Energy Management Program (FEMP)-designated energy-efficient products, water-efficient

¹³ See Supporting Document #6

¹⁴ See Supporting Document #7

products, energy from renewable sources, bio-based products, alternative fuel vehicles and alternative fuels, and non-ozone depleting substances.

- iii. *Transmission and Distribution Losses from Purchased Energy* – The Department maintains that transmission and distribution losses will be reduced as a consequence of reducing purchased electricity consumed (related Scope 2 reduction). The Department submits a GHG reduction target of 11% for purchased electricity transmission and distribution losses to align with the planned reduction in purchased electricity, and a 20% target pending adequate resources.

The Department's strategy to achieve the related Scope 2 reductions is outlined in detail under the Goal 1 section of the plan. The implementation strategy will include facility energy conservation measures, efforts to reduce employee energy demand, renewable energy, and changing energy sources.

- d. **Positions:** The Department is continuing to assess the staffing needed to implement this plan and will address any additional requirements through the financial planning process for FY10 and FY11 and/or in the FY12 budget request. We acknowledge a need to redirect priorities for existing FTE. The Department currently has no FTE that dedicate 100 % of their time to the Scope 3 GHG reduction goal area.
- e. **Planning table:** The Department has not established incremental annual targets at this time. The implementation strategy details will be refined in future years and incorporated in updates to the ASP.

	Units	FY 10	FY 11	FY 12	FY 13	FY 14	...	FY 20
GOAL 2 - SCOPE 3 GHG TARGET								
Overall Agency Scope 3 Reduction Target <i>(reduced from FY08 base year)</i>	%	0	TBD	TBD	TBD	TBD	....	2%
Sub-Target for Federal Employee Travel	%	0	TBD	TBD	TBD	TBD	....	TBD
Sub-Target for Contracted Waste Disposal	%	0	2 %	2 %	2 %	2 %	....	20 %
Sub-Target for Transmission and Distribution Losses from Purchased Energy	%	0	TBD	TBD	TBD	TBD	....	11 %

- f. **Agency status:** This is the first time that the Department will measure, evaluate and reduce Scope 3 GHG emissions, as required by E.O. 13514. The Scope 3 target tool, developed by the Office of the Federal Environmental Executive in consultation with the Department of Energy, was used to assist in developing the Department's Scope 3 GHG reduction target. The Federal Greenhouse Gas

Accounting and Reporting Guidance that is currently under development by the Department of Energy will be used to refine this baseline data.

GOAL 3: DEVELOP AND MAINTAIN AGENCY COMPREHENSIVE GHG INVENTORY

- a. Goal Description:** The Department will develop a comprehensive GHG inventory for its domestic operations and activities within the continental United States encompassing Scope 1, 2, and 3 emissions, in accordance with E.O. 13514. The Department's GHG inventory will have a baseline year FY2008 with the initial reporting of FY2010 emissions.

The geographic boundary for the GHG inventory is the domestic portfolio of Department owned and delegated facilities. GSA-leased facilities and facilities under direct control of the International Boundary and Water Commission (IBWC) and USAID will not be covered in the Department's GHG inventory. The GHG inventory will report on the following facilities:

- HST Harry S Truman – Main State
- SA-1 Columbia Plaza
- SA-51 Blair House - President's Guest House
- SA-26 Beltsville Information Management Center (BIMC)
- SA-33 Federal Building - International Chancery Center (ICC)
- SA-42 George P. Shultz - National Foreign Affairs Training Center (NFATC)
- SA-58 Portsmouth Consular Center (PCC)
- SA-61 Florida Regional Center (FRC)
- SA-59 Charleston Regional Center (CRC)
- SA-62 Kentucky Consular Center (KCC)

The Department of State anticipates managing new and additional domestic facilities over the next ten years, possibly requiring the Department to amend its historic GHG inventory.

- b. Agency lead:** The Department's Sustainability Plan was developed by cross-functional working groups. The agency lead for Goal 3 is the Bureau of Administration (A). This bureau has program responsibility for domestic facility management, fleet management, real property management, and logistics management.

The Office of Management Policy, Rightsizing, and Innovation (M/PRI), the Under Secretary for Management's central management organization, has overall responsibility for plan development and implementation. M/PRI provides guidance to offices and working groups, and ensures internal coordination and communication of the plan.

- c. Implementation methods:** The Department will to the greatest extent possible leverage existing definitions, data collection tools and reporting mechanisms to generate its GHG inventory and minimize the need to develop new collecting systems. The Department will rely on standardized federal methodologies to calculate Scope 1, 2, and 3 emissions and for reporting. Preferring use of a standardized federal validation and verification procedure for its emissions

inventory, the Department anticipates using the Department of Energy's - Federal Energy Management Program (FEMP) GHG reporting portal scheduled to be online by October 2010 to capture and maintain its GHG inventory data.

As part of the Department of Energy (DOE) Public Sector GHG Accounting Road Test, the Department conducted an initial review of specific emission sources that would be included in its comprehensive GHG inventory.

A critical challenge for the Department is the limited availability of employee commuting data for Scope 3 emissions. The Department suggests a federal government-wide approach to address this challenge as opposed to individual agency efforts. An OPM and Department of Transportation-sponsored federal employee survey of employee commuting would generate the necessary data while eliminating duplicative efforts.

- d. Positions:** The Department is continuing to assess the staffing needed to implement this plan and will address any additional requirements through the financial planning process for FY10 and FY11 and/or in the FY12 budget request. We acknowledge a need to redirect priorities for existing FTE. The Department currently has no FTE that dedicate 100 % of their time to this goal area.
- e. Agency status:** The Department is participating in the DOE Public Sector GHG Accounting Road Test and contributing to the development of a public sector protocol. The Department is in the data collection phase of its GHG inventory development and will use the DOE electronic GHG accounting tool when it is made available to agencies. The GHG inventory will be the Department's first comprehensive GHG inventory for its domestic operations. As the Department proceeds with data collection and development of the inventory it will refine its strategy and expand reduction goals as appropriate to address additional emission sources.

The Department committed to conduct a global sustainability survey as part of the Greening Diplomacy Initiative launched by Secretary Clinton on Earth Day, April 22, 2009. It is currently gathering overseas data in response to this commitment. The overseas data will align with its domestic data; however it will be maintained separately for accounting and inventory purposes. The global sustainability survey will provide a complete inventory of its greenhouse gas emissions, complementing the objectives of E.O. 13514.

GOAL 4: HIGH-PERFORMANCE SUSTAINABLE DESIGN/GREEN BUILDINGS

- a. **Goal description:** Implement High Performance Sustainable Federal Building Design, Construction, Operation and Management, Maintenance, and Deconstruction.
- b. **Agency lead:** The Department's Sustainability Plan was developed by cross-functional working groups. The agency lead for Goal 3 is the Bureau of Administration (A). This bureau has program responsibility for domestic facility management, fleet management, real property management, and logistics management.

The Office of Management Policy, Rightsizing, and Innovation (M/PRI), the Under Secretary for Management's central management organization, has overall responsibility for plan development and implementation. M/PRI provides guidance to offices and working groups, and ensures internal coordination and communication of the plan.

c. **Implementation methods.**

- i. *Beginning in FY2020, all new Federal buildings are to be designed to achieve zero-net energy by FY2030. Under the Department's current standard operating procedures (SOP), all new federally-owned buildings to be constructed for the Department are to be designed to meet Goal 4 and other sustainability criteria. The Department will execute its commitment to the interagency Federal Leadership in High Performance and Sustainable Building Domestic Implementation Plan (SBIP)¹⁵, signed in response to E.O. 13423, to address the above requirement.*
- ii. *All new construction, major renovation or repair and alteration of federal buildings now comply with "Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings (Guiding Principles)". The Department has agreed to adhere to the Guiding Principles, pending resources to implement them. The Department will continue to improve documentation and oversight of building projects for improved transparency and resource management.*

The Bureau of Administration, Office of Operations' (A/OPR) existing SOP for building operations, the SBIP, satisfies requirements for meeting the Guiding Principles. The plan and its status of implementation are updated and reported annually to the Assistant Secretary of Administration to promote continuous improvement toward its objectives and institutionalizing the capabilities and capacities of A/OPR to ensure delivery of high performance and sustainable buildings.

¹⁵ See Supporting Document #4

- iii. At least 15 % of agency's existing buildings and building leases meet guiding principles by FY2015 [5,000ft² threshold for existing buildings and building leases]. Reaching the 15% target for existing buildings will be a challenge for the Department. Of approximately eight million square feet of space leased from GSA, some 200,000 square feet, or 2.5% currently are in compliance with the Guiding Principles.*

To achieve conformance with the target, the Department would have to convert approximately 1.2 million square feet of its GSA leased space to new high performance and sustainable buildings by 2015, which would be cost-prohibitive and perhaps unrealistic in terms of available space for lease.

Moving into new high-performance buildings in general is more cost-effective than renovating existing space to meet the Guiding Principles; however, a consequence of such an initiative will be the additional move costs to upgrade to high performance and sustainable buildings that may not be fully offset by savings from vacating the older facilities. The Department is ensuring that all new leasing actions incorporate the latest GSA 'green lease' standards in its lease solicitations; however, it is unclear whether the 15% inventory target can be met through the normal lease acquisition process, which favors existing buildings and lease renewals over new leases. Lease renewals are not the typical instrument to upgrade space to high-performance and sustainable buildings. The Department will continue to explore its options with regard to this sub-goal.

- iv. Demonstrate annual progress toward 100% conformance with Guiding Principles for entire building inventory. The Department conforms to SBIP and OMB Scorecards, positive performance within such metrics assures environmental and energy intensity reductions and provides guidance for any required correction.*
- v. Demonstrate use of cost-effective, innovative building strategies to minimize energy, water and materials consumption. The Department's examples include the D Street Pavilion Green Roof as part of the HST Modernization and Perimeter Security Projects, and the several energy saving measures underway. In addition, Building 84 in the Charleston Regional Center will be collecting rainwater for subsequent use for flushing toilets and for landscaping, thereby reducing domestic water use by approximately 80%.*
- vi. Manage existing building systems to reduce energy, water and materials consumption in a manner that achieves a net reduction in agency deferred maintenance costs. The Department's energy savings lighting project and commitment to modify SBIP satisfies the substance of this sub-goal.*
- vii. Optimize performance of the agency's real property portfolio – examine opportunities to decrease environmental impact through consolidation, reuse and disposal of existing assets prior to adding new assets. Currently, this is*

accomplished through optimization of the real property portfolio and by utilizing opportunities for the consolidation of bureaus, co-location of multiple bureaus and better logistics resulting in a reduction of lease overlap, to avoid duplication of rent payments and associated operating costs. Tele-working, hot seating and incorporating docking stations into office spaces also assist in decreasing the Department's environmental impact.

viii. Ensure use of best practices and technology in rehabilitation of historic Federal properties. The Department's SBIP includes a requirement for conformance with the Historic Preservation Act and techniques for restoration and preservation through our adherence to the Facilities Standards for GSA Public Building Service.

d. Positions: The Department is continuing to assess the staffing needed to implement this plan and will address any additional requirements through the financial planning process for FY10 and FY11 and/or in the FY12 budget request. We acknowledge a need to redirect priorities for existing FTE. The Department currently has no FTE that dedicate 100 % of their time to this goal area.

e. Planning table: The Department will continue to refine the planning tables in the months ahead to ensure that amounts are consistent with budget requests and pass back amounts. The Department may recommend revisions to the targets based on new information and/or funding changes.

GOAL 4 - SUSTAINABLE HIGH PERFORMANCE BUILDINGS <i>(Buildings Meeting the Guiding Principles)</i>	Units	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Owned Facilities Targets	%	1 %	1 %	1 %	1.5 %	2 %	2 %
Leased Facilities Targets	%	0 %	0 %	1 %	1.5 %	2 %	2 %
Total Facility Targets	%	1 %	2 %	4 %	7 %	11 %	15 %
Other, as defined by agency	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Please see resources listed in our Goal 1 (SCOPE 1&2 GHG TARGET) Planning Table. They include sustainable high performance buildings projects in both energy saving measures and programmed funds.

f. Agency Status: On January 24, 2006, the Department signed the *Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding (MOU)* to commit to Federal leadership in implementing common strategies for planning, acquiring, building site positioning, designing, building, operating, and maintaining high performance and sustainable buildings. Twenty-one federal agencies signed the MOU. The MOU establishes a common set of *Guiding Principles* to 1) employ integrated design principles; 2) optimize energy performance; 3) protect and conserve water; 4) enhance indoor environmental quality; and 5) reduce environmental impact of materials. These Guiding Principles will help the Department achieve the following MOU goals:

- **Reduce** the total ownership cost of facilities;

- **Improve** energy efficiency and water conservation;
- **Provide** safe, healthy, and productive built environments; and
- **Promote** sustainable environmental stewardship.

The Department has implemented the SBIP at all spaces above the 5,000ft² threshold for existing buildings and building leases. The HST Modernization Phase II Prospectus, Buildings 84 and 644 in Charleston, S.C. and the ARRA-funded Foreign Affairs Security Training Center and ESOC-West Data Centers will build on the SBIP Guiding Principles to add quality space to the Department's building inventory. In addition, the Department is continuing its installation of energy-saving measures to reduce overall energy intensities at HST Building and the President's Guest facilities at Blair House.

In addition, the Harry S Truman Building (HST) Modernization Phase II prospectus will request funds to meet this goal, which would likely result in early completion of this goal for one-quarter of the Department domestic space inventory. Lastly, for HST the replacement cycle for major equipment units such as building chillers will coincide with the milestone to achieve zero-net energy for HST by 2030.

Energy savings mandates for improvements at the HST building and other Department-owned or delegated facilities have significant budgetary implications. Because of the size of HST and its proportion in the Department's overall real property inventory and energy use, the HST Modernization provides the best opportunity to achieve conformance with energy savings mandates. Currently the HST Modernization and similar projects partially meet the goals of the Guiding Principles.

In the multi-year, multi-phase design and construction project for the modernization of the HST building, the Department is striving to improve the building's energy consumption and identify opportunities for sustainability. This includes initiatives for greater water efficiency, improvements over the American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE) 90.1-2007 standard for energy conservation measures, recycled and salvaged construction waste, incorporation of sustainable construction materials and improvement in indoor environmental quality. The Phase 1B Renovation will attain LEED® Silver status under LEED® v3.0 for New Construction and Major Renovations and the following Phase 1C will also attain a minimum of LEED® Silver under LEED® v3.0. The HST Modernization Phase II Prospectus will allow additional opportunities to address and build on the SBIP Guiding Principles.

GOAL 5: REGIONAL AND LOCAL PLANNING

- a. **Goal Description:** Advance Regional and Local Integrated Planning.
- b. **Agency Lead:** The Department's Sustainability Plan was developed by cross-functional working groups. The lead office for Goal 5 is M/PRI. Contributing offices include (A), (HR) and the Bureau of Oceans, International Environmental and Scientific Affairs (OES).

The Office of Management Policy, Rightsizing, and Innovation (M/PRI), the Under Secretary for Management's central management organization, has overall responsibility for plan development and implementation. M/PRI provides guidance to offices and working groups, and ensures internal coordination and communication of the plan.

- c. **Implementation methods:**

- i. *Incorporate participation in regional transportation planning (recognition and use of existing community transportation infrastructure) into existing policy and guidance* – The Department is exploring opportunities to leverage the Washington Metro Area Transit Authority (WMATA)'s transportation infrastructure to reduce duplicate transportation activities between the Department and WMATA and to reduce traffic burden on city. Currently, the Department promotes employee use of WMATA by providing rider subsidies.
- ii. *Align Agency Policies to Increase Effectiveness of local energy planning* – The Department contributes to several regional planning organizations including, DOE's Interagency Energy Management Taskforce, DOE's Interagency Sustainability Working Group, Subcommittee [Data Center Working Group], Subcommittee [Operations and Maintenance/ Metering], and the D.C. Greening Embassy Forum.
- iii. *Incorporate sustainable building location into policy and planning for new Federal facilities and leases* – The Department's SBIP requires consideration of Guiding Principles in planning for sustainable site acquisitions. The Guiding Principles were incorporated into the site design for the leased American Pharmacy Association (APhA) facility and the recent site selection process for the Foreign Affairs Security Training Center. In addition, the Guiding Principles are informing a new prospectus request for lease acquisition of the World Bank Building to increase Department inventory of LEED®-compliant buildings.

Department manages its leased portfolio to maximize co-location and synergy of personnel. Plans are developed two to three years in advance for consolidations and large lease prospectus projects. An example of the local opportunities is the planned consolidation of the Bureau of Consular Affairs from six locations to one location in the Foggy Bottom area.

A regional example of co-location planning using sustainable sites is the American Recovery and Reinvestment Act (ARRA)-funded lease project to co-locate new Passport offices with Diplomatic Security offices.

- iv. *Update agency policy and guidance to ensure that all Environmental Impact Statements and Environmental Assessments required under the National Environmental Policy Act (NEPA) for proposed new or expanded Federal facilities identify and analyze impacts associated with energy usage and alternative energy sources – Department Guiding Principles include NEPA compliance for all new or expanded facilities. In addition LEED® measurement and verification processes were incorporated to show energy intensity reductions and to gain points for alternative energy resourcing.*
- v. *Update agency policy and guidance to ensure coordination and (where appropriate) consultation with Federal, Department, Tribal and local management authorities regarding impacts to local ecosystems, watersheds and environmental management associated with proposed new or expanded Federal facilities – The Department's current policies and guidance require full coordination and compliance with Department and local jurisdictional authorities to minimize impacts to local ecosystems, watersheds and environmental management at all new or expanded Federal facilities.*

d. Positions: The Department is continuing to assess the staffing needed to implement this plan and will address any additional requirements through the financial planning process for FY10 and FY11 and/or in the FY12 budget request. We acknowledge a need to redirect priorities for existing FTE. The Department currently has no FTE that dedicate 100% of their time to this goal area.

e. Planning table:

GOAL 5 - REGIONAL AND LOCAL PLANNING	Units	FY 10	FY 11	FY 12	FY 13	....	FY 20
Other, as defined by agency	N/A	N/A	N/A	N/A	N/A	N/A	N/A

f. Agency Status: Recently, Department personnel participated on a GSA-led team assembled to conduct a study of federal shuttle systems. This study was predicated by the E.O. 13514 requirement tasking GSA with conducting a "... review (of) current policies and practices associated with public transportation, with Federal shuttle bus and vehicle transportation routes supported by multiple Federal agencies, and with use of alternative fuel vehicles in Federal shuttle bus fleets, and provide recommendations to the CEQ Chair on how these policies and practices could be revised to support the implementation of this order and the achievement of its (sustainability) policies and goals."

In March 2010 and as a direct result of contacts made at planning meetings for the GSA study, Department personnel met with representatives from the Washington Metro Area Transit Authority (WMATA), the Arlington County (Va.) Regional Transit Authority (ART), and the Department of Defense to discuss the Washington, D.C. and Arlington County seven-year transportation plans, and how the Department's current and future shuttle needs might be folded into those plans. WMATA and ART were provided with a list of current Department building addresses, and the schedules/routes of shuttle buses that service those buildings. Specifically discussed at this meeting was the potential for combining existing Department and DOD shuttle routes, respective policies for use of federal agency shuttles by employees of other federal agencies, existing WMATA/ART bus routes that closely parallel existing Department bus routes, the potential for WMATA to institute a new public bus route from a Metro rail station to Department's training campus in Arlington, and the potential for increasing Department use of existing or future WMATA and ART public bus routes.

Several years ago, the Department explored the possibility of WMATA/ART providing customized bus support to Department employees between annex buildings, and utilizing existing WMATA/ART bus services to augment Department shuttle routes in the conduct of official business in the DC area. At that time however, neither WMATA/ART nor Department representatives could determine a feasible, efficient and legal method by which the Department could reimburse WMATA/ART for services rendered to Department employees (other than through out-of-pocket payment by the employee, followed by subsequent local travel cost reimbursement, which was determined to be too inefficient in the bigger picture); consequently, the initiative stalled. In their March 2010 meeting, the Department again raised this issue and was advised by ART that WMATA currently has a formal support agreement with the Environmental Protection Agency (EPA) that could possibly be cloned for Department use. A copy of the formal agreement was provided to the Department on March 24, 2010 and is currently being reviewed for feasibility and potential future use. Efforts in this area are ongoing as are plans to share shuttle services with the U.S. Institute of Peace once they occupy their new facility adjacent to the HST building.

GOAL 6: WATER USE EFFICIENCY AND MANAGEMENT

a. Goal Description: This requirement applies to the Department's current domestic portfolio of owned and delegated facilities:

- HST Harry S Truman – Main Department
- SA-1 Columbia Plaza
- SA-51 Blair House - President's Guest House
- SA-26 Beltsville Information Management Center (BIMC)
- SA-33 Federal Building - International Chancery Center (ICC)
- SA-42 George P. Shultz - National Foreign Affairs Training Center
- SA-58 Portsmouth Consular Center (PCC)
- SA-61 Florida Regional Center (FRC)
- SA-59 Charleston Regional Center (CRC)
- SA-62 Kentucky Consular Center (KCC)

Department goal targets are:

- Reduce domestic water use intensity by 26% by FY2020
- Reduce domestic landscaping water use by at least 20% by FY2020¹⁶
- Identify and implement water reuse strategies.
 - Office buildings: the Department will evaluate gray water use for landscaping irrigation to reduce potable water consumption.
 - HVAC cooling tower: the Department will evaluate rain water collection and storage.
- Achieve objectives established by EPA in Storm water Guidance for Federal Facilities. The Department will evaluate rainwater harvesting, green roofs, and other storm water options for our existing buildings. For new facilities our Sustainable Building Implementation Plan (SBIP) requires design compliance with EPA guidance.

b. Agency Lead: The Department's Sustainability Plan was developed by cross-functional working groups. The agency lead for Goal 6 is the Bureau of Administration (A). This bureau has program responsibility for domestic facility management, fleet management, real property management, and logistics management.

The Office of Management Policy, Rightsizing, and Innovation (M/PRI), the Under Secretary for Management's central management organization, has overall responsibility for plan development and implementation. M/PRI provides guidance to offices and working groups, and ensures internal coordination and communication of the plan.

¹⁶ The Department does not have industrial or agricultural water use.

- c. Implementation methods:** Domestic water use intensity reduction will be primarily accomplished by the replacement of old plumbing fixtures and faucets in our facilities.

Domestic water consumption last year for these facilities was dominated by HST at 62% of total (67,568,000 gallons used). HST is a GSA-owned facility with operation delegated to the Department. Phased renovations by GSA will eventually replace existing fixtures but not in time to meet annual targets. In December 2009, the Department signed an Energy Savings Performance Contract (ESPC) that included the replacement and retrofit of plumbing fixtures for five of our Washington area facilities.

Sub-metering will be used to identify and manage landscape and specific use of water consumption. The Department will also use re-commissioning to assist with water goal target achievement. Facility managers are charged with meeting goal targets and directing the support of the facility Operations and Maintenance (O&M) contractor. Portfolio water use is tracked by both facility-level personnel and headquarters personnel.

The Department's High Performance and Sustainable Building Implementation Plan (SBIP) will be revised to include E.O. 13514 water efficiency and management goals for GSA renovation projects and new building designs.

The Department anticipates managing additional domestic facilities over the next ten years. The Department's Sustainable Building Implementation Plan (SBIP) requires all domestic new construction and major renovations to achieve a minimum LEED® Silver rating and will be revised to also include E.O. 13514 requirements for storm water and water reuse strategies. Through the implementation of the SBIP, the Department will strive to achieve water use efficiency and planning goals even as it acquires additional facilities within its domestic portfolio.

- d. Positions:** The Department is continuing to assess the staffing needed to implement this plan and will address any additional requirements through the financial planning process for FY10 and FY11 and/or in the FY12 budget request. We acknowledge a need to redirect priorities for existing FTE. The Department currently has no FTE that dedicate 100% of their time to this goal area.
- e. Planning table (see next page):** The Department may recommend revisions to the targets based on new information. Furthermore, if the Department is required to take into account new facilities, the targets will need to be modified.

GOAL 6 - WATER USE EFFICIENCY & MANAGEMENT	Units	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	...	FY 20
Potable Water Reduction Targets <i>(gal/ft² reduced from FY07 base year)</i>	%	6 %	8 %	10 %	12 %	14 %	16 %	....	26 %
Planned Potable Water Reduction <i>(gal/ft² reduced from FY07 base year)</i>	%	6 %	8 %	10 %	12 %	14 %	16 %	....	26 %
Industrial, Landscaping, and Agricultural Water Reduction Targets <i>(gal reduced from FY10 base year)</i>	%	-	2 %	4 %	6 %	8 %	10 %	....	20 %
Planned Landscaping Water Reduction <i>(gal reduced from FY10 base year)</i>	%	-	2 %	4 %	6 %	8 %	10 %	....	20 %

*Please see resources listed in our Goal 1 (SCOPE 1&2 GHG TARGET) Planning Table. They include water projects in both energy saving measures and programmed funds.

- f. Agency status.** FY2009 water use reported to Department of Energy showed a slight increase in water use intensity over FY2007 baseline. This was due to increased consumption at HST. HST Phase 1B and 1C renovation efforts will replace existing high-flow plumbing fixtures with new, low-flow units. An ESPC signed in December 2009 includes water retro-fits in HST, ICC, NFATC, BIMC, & Blair House. The Department plans to replace more than 1200 existing toilets, urinals, and faucets with low flow units over the next 14 months. The expected water savings should achieve short-term water reduction goals of 10% less than FY07 total portfolio consumption (meets FY2012 reduction requirement).

GOAL 7: POLLUTION PREVENTION AND WASTE ELIMINATION

a. *Goal Description:*

- Increase source reduction of pollutants and waste.
- Divert at least 50% non-hazardous solid waste by FY2015, excluding construction and demolition (C&D) debris.
- Divert at least 50% C&D materials and debris by FY2015.
- Reduce printing paper use.
- Increase use of uncoated printing and writing paper containing at least 30% postconsumer fiber.
- Reduce and minimize the acquisition, use, and disposal of hazardous chemicals and materials.
- Increase diversion of compostable and organic materials from the waste stream.
- Implement integrated pest management and landscape management practices to reduce and eliminate the use of toxic and hazardous chemicals and materials.
- Increase agency use of acceptable alternative chemicals and processes.
- Decrease agency use of chemicals to assist agency in achieving FY2020 GHG reduction targets.
- Report in accordance with Sections (301-313) of the Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986

b. *Agency lead:* The Department's Sustainability Plan was developed by cross-functional working groups. The agency lead for Goal 7 is the Bureau of Administration (A). This bureau has program responsibility for domestic facility management, fleet management, real property management, and logistics management.

The Office of Management Policy, Rightsizing, and Innovation (M/PRI), the Under Secretary for Management's central management organization, has overall responsibility for plan development and implementation. M/PRI provides guidance to offices and working groups, and ensures internal coordination and communication of the plan.

c. *Implementation methods.* The Department will continue existing programs and initiatives that support our compliance with the requirements outlined in E.O. 13514 for Pollution Prevention and mandated reporting in accordance with Sections 301-313 of EPCRA, and Section 6002 of the Resource Conservation and Recovery Act (RCRA). The Department's domestic owned and delegated facilities, listed earlier under Goal 1, are covered in our annual Sustainable Acquisition Practices: Green Purchasing, Waste Management, and Chemicals Management surveys.

The Department's Domestic Design Guidelines and Building Standards include waste minimization requirements following the hierarchy of reduction, reuse,

recycling, and disposal. All construction and demolition (C&D) projects initiated by the Department include a requirement for 50% recycling of C&D debris. It is important to note that this requirement is not an annual goal but a per project goal for C&D recycling. The Department's domestic owned and delegated facilities have active recycling programs. GSA leases require a building owner to comply with local regulations and requirements; thus all leased facilities occupied by Department employees also conduct recycling at various levels.

The Department is working to decrease paper consumption. In 2010, the Department began advocating for duplex printing and copying. In addition, a Department Notice was released with instructions on how to set the default settings for all computers to double-sided printing. Currently, the Department is only procuring printers with double-sided capability.

Global Printing Solutions (GPS), the Department's printing operation, already complies with the goal of using uncoated printing and writing paper containing at least 30% postconsumer fiber. The Department intends to make this a department-wide practice.

Current measurement of department-wide paper consumption is limited. Due to decentralized procurement practices, the Department plans to develop a system that provides a full inventory of paper consumption. A description of the new system will be part of the Department's FY2011 ASP submission.

- d. **Positions:** The Department is continuing to assess the staffing needed to implement this plan and will address any additional requirements through the financial planning process for FY10 and FY11 and/or in the FY12 budget request. We acknowledge a need to redirect priorities for existing FTE. The Department currently has no FTE that dedicate 100 % of their time to this goal area.

e. **Planning table:**

GOAL 7 - POLLUTION PREVENTION & WASTE ELIMINATION	Units	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Non-Hazardous Solid Waste Diversion Targets <i>(non C&D)</i>	%	TBD	TBD	TBD	TBD	TBD	50 %
C&D Material & Debris Diversion Targets	%	50 %	50 %	50 %	50 %	50 %	50 %

- f. **Agency status:** Over the years, the Department has implemented several product substitution, waste reduction and recycling initiatives, and service contract modifications, to reduce the spectrum and amounts of hazardous materials and toxic chemicals used at domestic facilities. A green purchasing element is specifically identified in the Environmental Health and Safety Management System (EHSMS) program manual. The Compliance and Process Tracking System (CP Track) online software is used to review green purchasing program compliance for domestic facility custodial and Operations and

Maintenance contracts.

To reduce paper consumption, many offices have moved to electronic methods of reporting. For example, weekly reports to senior management are now routed through Microsoft SharePoint websites instead of by paper or individual emails. Also, as a result of recent greening initiatives, many offices are analyzing their newspaper and periodicals and are cutting back on paper copies. Similarly, many offices are moving to electronic filing, which eliminates paper and frees space from filing cabinets.

The HST main cafeteria also uses 100% compostable, biodegradable disposable products. Once the HST cafeteria renovation is complete, the majority of cafeteria waste will be composted. Furthermore, when food demand in the cafeteria is miscalculated or external events such as weather/building emergencies result in overproduction, food is donated to the DC Kitchen.

GOAL 8: SUSTAINABLE ACQUISITION

- a. **Goal Description:** Ensure 95% of new contract actions, including task and delivery orders under new contracts and existing contracts, require the use of products and services that are energy efficient (Energy Star ® or FEMP-designated), water efficient, bio-based, environmentally preferable (including EPEAT-registered products), non-ozone depleting, contain recycled content, or are non-toxic or less toxic alternatives.

Update agency procurement plans, policies and programs to ensure that all federally mandated designated products and services are included in relevant acquisitions.

- b. **Agency Lead for Goal:** The lead offices for development, implementation, and oversight of this goal are the Office of Acquisitions Management (A/AQM) and the Office of the Procurement Executive (A/OPE) within the Bureau of Administration. However, it will require the cooperation of the entire Department, as acquisitions is a Department-wide function.

The Office of Management Policy, Rightsizing, and Innovation (M/PRI), the Under Secretary for Management's central management organization, has overall responsibility for plan development and implementation. M/PRI provides guidance to offices and working groups, and ensures internal coordination and communication of the plan.

- c. **Implementation methods:** The Department follows the procurement regulations prescribed by the Federal Acquisition Regulations (FAR). Currently there is a pending FAR case focused on implementing E.O. 13514. Upon closure of this case, the Department will incorporate all new procedures and guidance into all of its new contract actions as applicable. While these actions comply with the intent of E.O. 13514, the Department sees additional actions that are necessary to execute Goal 8, specifically:

- Improve the data collection capacity; and
- Training, communication, and outreach.

The Federal Procurement Data System (FPDS) currently has two data elements that are associated with sustainability. One data element shows recovered materials usage and the other addresses the use of EPA-designated products; these data elements do not adequately cover the scope of E.O. 13514. In addition, the Office of the Federal Environmental Executive (OMB/OFEE) has not yet submitted a change request to the FPDS change control board to automate and track E.O. objectives. The Department recommends that OMB/OFEE submit the aforementioned to optimize data gathering. In the interim, the Department is examining ways to efficiently and effectively capture, analyze, and track performance related to E.O. 13514 compliance.

Focusing on the demand side, the Department intends to offer education and training to its employees and stakeholders in order to alter consumer behavior and raise awareness of sustainable procurement across the Department.

The Department promotes awareness of sustainable acquisitions through several venues such as the Contracting Officer's Representative (COR) conferences, Green Team meetings, and other greening and sustainability events that are sponsored at the Department. In addition, the Department's Green Diplomacy Initiative (GDI) has a dynamic intranet site where greening and sustainable information such as the Procurement Information Bulletins (PIBs) on acquisition policy can be readily announced and promoted.

d. Positions: An effective outreach program will facilitate the necessary changes throughout acquisition lifecycle. Dedicated staff will be required and program responsibilities will also be added as collateral duties for existing acquisition staff. A/LM/AQM plans to incorporate sustainable acquisition review into the existing quality control review functions and will utilize existing staff to perform these functions as part of the normal review process. A/LM/AQM Contracting Officers will be required to review source selection plans over \$500,000 for sustainable materials requirements prior to awarding the action. A/LM/AQM also plans to assign additional staff to implement policy, review achievement of goals and serve as an advocate for the use of sustainable materials in acquisitions.

Duties of this staff:

- Assist in the identification of environmentally-friendly specifications during acquisition planning and assist internal clients with development of such specifications
- Keep current on the ever-expanding lists of environmentally preferable products and services
- Review internal training material to incorporate E.O. 13514
- Work with the Department's largest contractors to ensure compliance
- Analyze and report on progress
- Identify and develop internal policy changes, including updates to the Affirmative Procurement Plan¹⁷
- Act a subject matter expert regarding this program
- Develop corrective action plans as necessary
- Identify program training opportunities throughout the organization

Until automated systems and tools are developed for capturing and analyzing data, future reporting and analysis will be limited with low quality and insufficient granularity. Dedicated human capital and expertise is required for outreach efforts to have broad scope and success.

¹⁷ See Supporting Document #8

e. Planning table.

	Units	FY 10	FY 11	FY 12	...	FY 20
GOAL 8 - SUSTAINABLE ACQUISITION						
New Contract Actions Meeting Sustainable Acquisition Requirements	%	?	95%	hold	hold	hold
Energy Efficient Products <i>(Energy Star, FEMP-designated, and low standby power devices)</i>	%	?	95	?	?	?
Water Efficient Products	%	?	95	?	?	?
Bio-based Products	%	?	95	?	?	?
Recycled Content Products	%	?	95	?	?	?
Environmentally Preferable Products/Services <i>(excluding EPEAT)</i>	%	?	95	?	?	?
SNAP/non-ozone depleting substances	%	?	95	?	?	?
Other, as defined by agency	N/A	N/A	N/A	N/A	N/A	N/A

f. Agency Status. The Department has taken many steps to embrace environmentally friendly acquisitions:

- Interior renovations of domestic facilities over 5,000ft² are currently required to be designed/constructed to meet a minimum of LEED[®] Silver certification. And for the interior renovation projects less than 5,000 ft² where LEED[®] certification is not practical, contracts include energy efficiency and sustainable design/construction requirements.
- Purchases of furniture, furnishings and equipment include a substantive goal for green purchasing and include an acquisition program run by subject-matter experts to ensure that Federally-mandated designated products and services are included in acquisitions associated with new construction, initial space alterations and renovations.
- All A Bureau-managed custodial, building operation and maintenance contracts include Buy-Green Affirmative Procurement Program requirements.

The Office of Information Resource Management's Global IT Mobilization (GITM) procurement contracts include EPEAT clauses for large-scale purchases of computer equipment.

In addition, the Department's comprehensive Affirmative Procurement Plan is being revised to incorporate E.O. 13514 and the Agency Sustainability Plan.

GOAL 9: ELECTRONIC STEWARDSHIP AND DATA CENTERS

- a. **Goal description:** Establish and implement policy and guidance to ensure the use of power management, duplex printing, and other energy efficient or environmentally preferred options and features on all eligible agency electronic products, and support sustainable electronic equipment disposal practices.
- b. **Agency lead for goal:** The Department's Sustainability Plan was developed by cross-functional working groups. The agency lead for Goal 9 is the Bureau of Information Resource Management (IRM).

The Office of Management Policy, Rightsizing, and Innovation (M/PRI), the Under Secretary for Management's central management organization, has overall responsibility for plan development and implementation. M/PRI provides guidance to offices and working groups, and ensures internal coordination and communication of the plan.

- c. **Implementation methods:** Through its Electronics Stewardship Plan¹⁸, the Department strives to reduce the environmental impact of its electronic equipment in the areas of design, procurement, operations and maintenance, and end-of-life management. To help achieve these goals, the Global IT Modernization (GITM) program procures only Energy Star and Electronic Product Environmental Assessment Tool (EPEAT) compliant IT equipment for deployment in all consolidated bureaus. For its data centers, the Department actively purchases Energy Star rated servers and plans to pursue many of the draft EPA model guidance for Energy Star rated data centers. In addition, IRM installs only shared, network printers with duplex ready capability, and removes individual desktop printers as they become obsolete.

To address its older electronics inventory, the Department recently updated its IT equipment disposition policy¹⁹. This policy states that all unclassified computer hardware, which can no longer be used within the Department and has been declared as excess property, should be donated to schools or educational nonprofit organizations, especially in Federal empowerment zones and enterprise communities, in accordance with the Computers for Learning Program, E.O. 12999.

To ensure best practices for the energy efficient management of servers and desktops, the Department has several initiatives underway, including data center consolidation, enterprise desktop power management, thin client workstation deployments, and server virtualization in data centers.

Plans are presently underway for the design and construction of a new data center which will use various green technologies, such as outside air conditioning

¹⁸ See Supporting Document #5

¹⁹ See Supporting Document #9

economizers, environmentally friendly uninterrupted power, and motion sensitive lighting. Design plans adhere to the standards prescribed in the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Standard 90.1. To help meet sustainability goals, the facility will operate using energy measurement tools to track and tune for more effective facility energy performance. The IT equipment planned for this location will focus on high efficiency blade technology, combined with substantial server virtualization. The goal is for 75% of all systems to use either virtual or blade technology. Upon completion, the new data center will be the Department's first LEED® accredited data center, and will be accredited at the LEED® Silver level.

To improve efficiencies in its existing data centers, the Department is undertaking a program to renovate and retrofit its older facilities. Part of this effort includes conducting monthly power and cooling audits on each data center and reporting the results for evaluation. The IRM Bureau is also working closely with Facilities Management (A/OPR/FMS) to ensure proper air handling throughout the rooms. This involves the use of hot and cold aisles, proper placement of cooling floor tiles, recalibration of air handlers, and the installation of rack blanking panels. These improvements, along with continued consolidation efforts, will substantially reduce the amount of energy used in the data centers.

In regards to desktop power management, the Department plans to implement its power management initiative based on a phased approach. During the first phase, the IRM Bureau will concentrate on leveraging its existing power management capabilities, such as sleep and hibernate modes, using methods and tools currently available. For its domestic locations, the Department plans to meet the OMB goal for 100% compliance by enabling basic power management features on its workstation base. The second phase of the power management initiative will include implementing a single, enterprise-wide solution that accounts for the security requirement for performing centralized patching and security compliance scanning. A solution has recently been identified and is awaiting final approval. Due to the huge scope of this effort, full activation of an enterprise-level power management solution feature is expected to exceed the current fiscal year.

Besides its power management initiative for workstations, the Department is also actively replacing its existing classified PC inventory with thin client workstations at a ratio of 90% thin clients to 10% PCs. First launched on the classified system in 2006, thin client workstations consume far less energy than traditional PCs. Since thin clients are smaller, have no moving parts or fans, they have a smaller environmental footprint while in use and at end-of-life. Also, thin clients do not contain hard drives, thereby reducing information security concerns. In FY2010, IRM will add more than 2,200 thin clients to its classified network. Plans are also underway to pilot and evaluate the possible deployment of thin client workstations on the Department's unclassified network in FY2011.

- d. Positions:** The Department is continuing to assess the staffing needed to implement this plan and will address any additional requirements through the

financial planning process for FY10 and FY11 and/or in the FY12 budget request. We acknowledge a need to redirect priorities for existing FTE. Since the Information Management Resource bureau will play a significant role in reducing the Department's energy consumption in future years, IRM may need to assign additional FTE positions to manage the various aspects associated with achieving desired outcomes.

- e. **Planning table:** The Department will continue to refine its measurements for the planning table in the coming months and may recommend revisions to targets based on new information. Current targets will be aligned with budget requests and may require adjustments as future funding amounts fluctuate.

In previous years, reporting for Energy Star and EPEAT-qualified devices, as related to the environmental scorecard, was limited to equipment purchased by IRM. As a result of the recent department-wide IT consolidation effort over the past year, the scope of qualified devices brought under the control of the IRM bureau has increased significantly. For the purposes of this plan, the FY2010 figures will continue to reflect qualified devices purchased by the IRM bureau only. As the newly consolidated bureaus require replacement IT equipment, it is the Department's goal to purchase only Energy Star and EPEAT qualified devices whenever practical.

While the vast majority of monitors and workstations go into power saving mode after a specified period of time, the capabilities of our present printer inventory are unclear. For the past few years, the IRM bureau has purchased duplex ready network printers exclusively; however, at the same time, individual offices have not been prohibited from purchasing local, desktop printers that do not offer this capability. As awareness of the benefits of duplex printing become ingrained into the Department's culture and become a matter of habit, it is the Department's goal to move toward using duplex printing as the default setting in all instances where this is practical.

The table entry (below) indicating the average CPU utilization for the virtual infrastructure only pertains to the infrastructure that the Systems and Integration Office controls, and does not include any additional efforts outside of that office.

Currently none of the Department's data centers fall into the desired range of agency Power Usage Effectiveness (PUE) ratings. However, once data center consolidation is completed in FY2012, the Department expects that half of its remaining data centers will operate within the accepted range. Within the Department, IT equipment (e.g., servers, desktops, peripheral equipment, communication devices) represents approximately 50% of a building's energy consumption. Because IT-related energy consumption is so significant, the Department plans to track the electronic stewardship and data center initiatives described in the following Table against their impacts on the Department's aggregate Scope 2 GHG inventory. The next iteration of the Department's *Agency Sustainability Plan* should contain these new metrics.

	Units	FY 10	FY 11	FY 12	FY 13
GOAL 9 - ELECTRONIC STEWARDSHIP & DATA CENTERS					
% of device types covered by current Energy Star specifications that must be energy-star qualified (Desktop Only) [IRM] *	%	100%	100%	100%	100%
% of electronic assets covered by sound disposition practices [IRM] *	%	100%	hold	hold	hold
% of cloud activity hosted in a data center [IRM / CA]	%	100%	hold	hold	hold
% of agency data centers independently metered or advanced metered and monitored on a weekly basis [IRM] *	%	50%	50%	75%	75%
Reduction in the number of agency data centers [IRM] *	%	10%	20%	40%	60%
% of agency eligible electronic products with power management and other energy-environmentally preferable features (duplexing) actively implemented and in use [IRM / CA]	%	50%	75%	100%	100%
% of agency data centers operating with an average CPU utilization of 60-70% for Virtual Infrastructure [IRM / CA]	%	10%	30%	50%	hold
% of agency data centers operating at a PUE range of 1.3 – 1.6 [IRM / CA]	%	0%	0%	50%	75%
% of covered electronic product acquisitions that are EPEAT-registered [IRM] *	%	100%	100%	100%	100%
% of agency data center activity implemented via virtualization [IRM / CA]	%	20%	25%	40%	50%
Other, as defined by agency	N/A	N/A	N/A	N/A	N/A

f. Agency Status: The Department has taken many steps to embrace environmentally friendly acquisitions. The Secretary's Greening Diplomacy Initiative has put greening on the forefront from a management, public diplomacy, and policy standpoint. As a result, the Department incorporates sustainability provisions into all new pertinent IT contracts. The Global IT Modernization Program procurement contracts are just one example of this practice and include EPEAT clauses for large scale purchases of computer equipment. During FY2009, all workstations and monitors purchased met EPEAT silver or gold standards, the two highest ratings. All FY2010 IT procurements are on track to meet EPEAT criteria as well^{20,21}. In addition, the Department's Affirmative Procurement Plan incorporates the requirements found in E.O. 13514. The Global IT Modernization Program has been an active partner in the Federal Electronics Challenge, managed by the U.S. Environmental Protection Agency and the Office of Federal Environmental Executive, since December 2007.

In March 2010, IRM completed a major data center consolidation effort by closing the Combined Bureau Processing Center (CBPC). This year-long project

²⁰ Samples of solicitations with EPEAT clauses can be found in Supporting Document #10

²¹ Samples of equipment specifications with EPEAT clauses can be found in Supporting Document #11

removed all systems in the CBPC and returned the room to the A Bureau for reconstruction. Many of the moved systems were virtualized and others went to more maintainable data centers. In FY2010, data center consolidation efforts will continue along with additional server virtualization: 144 servers are expected to be virtualized, bringing the total number of virtualized servers to 720.

The Department's efforts will be consistent with the Federal Data Center Consolidation Initiative announced by Federal CIO Kundra in February 2010.

GOAL 10: AGENCY INNOVATION

- a. **Goal description:** The Department will continue to explore new and innovative environmentally sustainable solutions to enhance its business processes.
- b. **Agency lead:** The Greening Council (GC) leads the Department's effort to harness the vast resources and crosscutting interests within the Department to focus on its greening efforts.
- c. **Implementation:** The Department's Greening Council meets quarterly to discuss options for implementation or direct the GCWG to research or execute a green solution. The GC Ideas Team uses a portal on the Department's internal homepage to communicate with Department employees and solicit ideas and innovative approaches to apply to Department business processes. These solutions move to the GC for consideration, and if approved, are tasked out to the various divisions within the Department for implementation. The GC periodically asks for updates and metrics of programs to review progress and provide additional guidance if needed.
- d. **Positions:** The GC Executive Secretariat prepares for and executes Greening Council and Greening Council Working Group meetings, oversees the drafting of required reports and documents, and finalizes strategic outlook documents and implementations plans on behalf of the Greening Council. The Office of Management Policy, Rightsizing, and Innovation (M/PRI) serves as the Executive Secretariat and has 1.5 FTE positions assigned to sustainability issues. The Secretary's Sounding Board, which serves as the interface for green ideas from employees, has one FTE dedicated to managing its day to day operations.

e. Planning table:

	Units	FY 10	FY 11	FY 13	...	FY 20
GOAL 10 - AGENCY INNOVATION						
Other, as defined by agency	Council	1	hold	hold	hold	hold

- f. **Agency Status:** The major green innovation the Department implemented over the past year is the Greening Council. Headed by the Under Secretary for Management, who is also the Department's Senior Sustainability Officer (SSO) the Council's composition of the Department's leadership and its cadre of volunteers to carry out tasks and programs highlight the enthusiasm and dedication to greening within the Department. The Council is a way to harness this energy by empowering employees and developing environmentally sustainable business practices. The ability of the Council to respond to the requirements of E.O. 13514 and to develop this suitability plan illustrates the effectiveness of the group. It also indicates the potential that the Council has to develop and implement a series of new and innovative green solutions in the

years ahead. Already, over 146 green ideas have been submitted by Department employees and are being reviewed and evaluated for implementation by the GCWG.

SECTION 3: AGENCY SELF EVALUATION

I. TABLE:

Does your plan provide/consider overarching strategies and approaches for achieving long-term sustainability goals?	Yes
Does your plan identify milestones and resources needed for implementation?	No
Does your plan align with your agency's 2011 budget submission?	Yes
Is your plan consistent with your agency's FY 2011 budget and appropriately aligned to reflect your agency's planned FY 2012 budget submission?	Yes
Does your plan integrate existing EO and statutory requirements into a single framework and align with other existing mission and management related goals to make the best use of available resources?	Yes
Does your plan provide methods for obtaining data needed to measure progress, evaluate results, and improve performance?	Yes

II. PLANNED ACTIONS TO ACHIEVE THE SUSTAINABILITY AND ENERGY STANDARDS FOR SUCCESS ON THE OMB SCORECARD

- Complete retrofits at Harry S. Truman building, National Foreign Affairs Training Center, Beltsville Information Management Center, International Chancery Center, and Blair House (DC).
- Award energy savings contracts covering ECMs at five DC-area buildings by 7/30/10.
- Update metering plan to incorporate natural gas and steam meters in appropriate facilities by 2016.
- Update DOE on findings of evaluations in $\geq 50\%$ covered facilities.
- Continue to deploy Intelligent Power Management tools to domestic desktops.
- Continue to support increased EMS implementation at all "red" facilities and proceed with implementation if resources allow.
- Continue to perform sustainability assessments for other domestic facilities.

List of Supporting Documents – [Will be issued soon]

1. Appendix: Bureau of Overseas Buildings Operations (OBO) Sustainability
2. Greening Diplomacy Initiative (GDI) Charter
3. Greening Council (GC) Organizational Structure
4. Federal Leadership in High Performance and Sustainable Buildings Domestic Implementation Plan (SBIP)
5. Electronics Stewardship Plan
6. Data Center Consolidation Overview (including Server Consolidation)
7. Domestic Environment and Safety Guide - Recycling Program
8. Affirmative Procurement Plan
9. 14 FAM 427.1 - Excess Property (including disposition of IT equipment)
10. Sample solicitations including EPEAT clauses
11. Sample equipment specifications including EPEAT clauses